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ABSTRACT

Ranging between 15 to 20 years of age, 178 subjects participated in a study designed to assess whether adolescents' perceptions of intrapsychic and extrapsychic functioning could be used to discriminate between pure identity statuses. Intrapsychic functioning was conceptualized to include degree of self-conscious reasoning and quality of the separation-individuation process of adolescence. Extrapsychic functioning was conceptualized in terms of family coping, family cohesion, and openness of parent-adolescent communication patterns. Participants were asked to complete a battery of questionnaires, including the Adolescent Social Behavior Scale, the Separation-Individuation Test of Adolescence, the Family Adaptability and Cohesion Scale, the Family Coping Scale, and the Parent-Adolescent Communication Scale. In general, findings of a stepwise discriminant analysis revealed that interactions between intrapsychic and extrapsychic functioning were associated with different identity statuses. While it was not possible to accurately classify adolescents from all identity statuses, identity-achieved adolescents and diffused adolescents were most accurately identified. Discussion addresses the relevance of these findings to the model of adolescent psychosocial development advanced by Grotevant and Cooper. Forty-eight references are cited. (RH)

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Perceptions of Intrapsychic and Extrapsychic Functioning as Bases of Adolescent Ego Identity Statuses1,2

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Abstract

A total of 178 subjects participated in a study designed to assess whether adolescent perceptions of intrapsychic and extrapsychic functioning could be used to discriminate between pure identity statuses. Intrapsychic functioning was dimensionalized to include degree of self-conscious reasoning, and quality of the separation-individuation process of adolescence. Extrapsychic functioning was dimensionalized in terms of family coping, family cohesion, and openness of parent-adolescent communication patterns. The stepwise discriminant analysis yielded two discriminant functions which indicated that the adolescent's perceptions of intrapsychic and extrapsychic functioning significantly discriminated between the identity statuses. The classification results reveal that identity achieved and diffused adolescents were most accurately identified based on the discriminant functions. The discussion addresses the relevance of these findings to the model of adolescent psychosocial development advanced by Grotevant and Cooper.

Perceptions of Intrapsychic and Extrapsychic Functioning as Bases of Adolescent Ego Identity Statuses

According to Erikson (1950, 1968) and Matteson (1977), adolescents progressively construct a more differentiated and adaptive sense of ego identity by (a) engaging in the active exploration of life alternatives, and (b) making self-chosen commitments to specific life alternatives. The interaction of exploration and commitment in the identity formation process provided Marcia (1966) with a conceptual framework for defining four pure identity statuses. From most to least mature, the identity statuses consist of identity achievement, moratorium, foreclosure, and diffusion.

The writings of both Erikson (1959) and Marcia (in press, 1980, 1983) suggest that the adolescent's exploration and commitment to life alternatives depends upon the interaction of intrapsychic and extrapsychic systems. Intrapsychic systems encompass cognitive styles (e.g., organization and depth of information processing strategies) and perceptions about personality processes (e.g., separation-individuation) involved in the adolescent's on-going construction of a sense of self. The extrapsychic system is comprised of the adolescent's reactions to, and evaluations about the functioning of the external world which may affect the on-going construction of a sense of self. Implicit in the interaction between intrapsychic and extrapsychic systems is the notion that identity development is both modified by, and a modifier of, the social contexts in

which self-construction is embedded (Lerner, 1987; see also Holmbeck, 1988 and Sabatelli & Mazor, 1985).

The intrapsychic system has usually been hypothesized to consist of the individual's personal construct system (Berzonsky, in press, 1988a and 1988b; Berzonsky & Neimeyer, in press), personality organization (Hauser, 1978; Josselson, 1973; Loevinger, 1976), and level of cognitive processing (Adams, Abraham, & Markstrom, 1987; Berzonsky & Barclay, 1981; Grotevant & Cooper, 1986). For example, the work of Berzonsky and Neimeyer on personal construct systems has suggested that identity formation depends upon the adolescent's openness and flexibility in processing information from the environment.

Consistent identity status differences in intrapsychic functioning have been reported. Achieved adolescents tended to confront problems directly (Grotevant & Adams, 1984), and exhibited less self-focusing and self-consciousness relative to the other identity statuses (Adams, et al., 1987). Adolescents classified as identity achieved or in moratorium also revealed a better ability to deal with the cognitive complexity associated with self-exploration (Berzonsky & Neimeyer, in press). Read, Adams, and Dobson (1984) reported that adolescents experiencing identity achievement or moratorium not only processed more information in a social task, but were more confident in the ideas that they generated.

Adolescents who have foreclosed on their identity display a variety of shortcomings in intrapsychic functioning, including an

inflexible value and belief system (Berzonsky & Neimeyer, in press; Marcia, in press, 1967), low ambiguity tolerance, high resistance to change, and a relative inability to coordinate information from different perspectives (Read, et al., 1984). Additional research by Slugoski, Marcia, and Koopman (1984) revealed that identity foreclosed and diffused adolescents experienced more difficulty developing a personal point of view than did adolescents who were achieved or in moratorium. The less mature identity statuses were characterized by a pattern of intrapsychic functioning that was clearly different from that of their more mature counterparts. Thus, identity statuses in which active exploration was ongoing seemed to be associated with greater openness to information, and a certain flexibility in processing information than was present in the nonexploration identity statuses.

However, the role of personality functioning in identity development, especially the separation-individuation process of adolescence, has not been systematically explored. Although some very suggestive research has been reported which indicates a relationship between the more mature identity statuses and the capacity for developing and maintaining close interpersonal relationships (e.g., Orlofsky, Marcia, & Lesser, 1973), there have been no attempts to link the separation-individuation process of adolescence with identity development.

The extrapsychic system is comprised of the social contexts provided by the family and friends. A number of authors (e.g.,

Berzonsky & Barclay, 1981; Grotevant, 1983; Marcia, 1976) have suggested that the functioning of family systems can also be characterized by openness and flexibility in processing information. Family systems that encourage open patterns of communication and adaptability to change may shape and facilitate the development of these characteristics among family members. The interactive nature of extrapsychic and intrapsychic systems provides support for the assumption that adolescents who are participants in social contexts which facilitate openness and flexibility will be most actively engaged in exploring and making commitments to life alternatives.

Perhaps the most comprehensive statement on the role of the family in the identity formation process has been stated by Grotevant and Cooper (1985, 1986; Cooper, Grotevant, & Condon, 1983; Grotevant, 1983). These authors have contended that the family plays a significant role in adolescent identity formation by allowing the adolescent to express differences of opinion from parents (individuality) while maintaining a sense of emotional connectedness to parents. This process of establishing individuality and connectedness has important implications for the adolescent's ability to explore and make commitments to various life alternatives.

The Grotevant and Cooper model suggests that the presence of both emotional connectedness and individuation in the family context provides a foundation from which the adolescent is able to freely explore and make commitments to life alternatives.

Families which are overly connected may stifle the adolescent's exploration of life alternatives, and may also exact commitments that are family- rather than self-chosen. Similarly, families that exhibit a low degree of emotional connectedness may not provide a foundation from which adolescents are able to explore potential life alternatives. Families may also fail to provide the opportunities, guidance, or validation necessary for the adolescent to make commitments (Bell & Bell, 1983; Reiss, Oliveri, & Curd 1983). Thus, individual differences in identity status may be predicted by measures of emotional connectedness and individuation in the family.

There is a growing body of empirical evidence to support these assumptions. A variety of researchers have reported that patterns of familial affection, rejection, and communication were associated with adolescent identity statuses (Adams, 1985; Adams & Jones, 1981, 1983; Campbell, Adams, & Dobson, 1984; Enright, Lapsley, Drivas, & Fehr, 1980; Papini, Sebby, & Clark, in press). For example, Adams (1985) found that adolescent females exhibiting identity foreclosure and diffusion perceived and experienced rejection from their parents. Conversely, the relationship of identity achieved and moratorium adolescents with their parents was characterized by greater supportiveness. Campbell et al. (1984) examined the familial bases of identity development using the psychosocial model advanced by Grotevant and Cooper (1983). Family affect and communication styles were employed to reflect emotional connectedness, while perceptions of

independence were used to reflect individuality. These authors found the least amount of identity exploration in families where there was high parent-adolescent rejection and control coupled with weak affect and communication. Thus, identity statuses in which active exploration was ongoing seemed to be associated with extrapsychic systems that were open to expressions of individuality while providing a sense of emotional connectedness among family members.

Empirical research has clearly demonstrated that certain dimensions of intrapsychic and extrapsychic functioning are predictive of adolescent identity status. For example, adolescents experiencing identity achievement or moratorium reported an openness and flexibility in intrapsychic functioning that was not present among identity foreclosed and diffused adolescents. Similarly, adolescents experiencing identity achievement or moratorium perceived their families as providing emotional support for them while fostering their attempts at individuation. Previous research also has indicated that patterns of parental control and rejection, family cohesion, parent-adolescent communication, and individuation influence adolescent identity formation. Thus, the openness and flexibility of the family in adjusting to adolescent development may predict adolescent identity status.

Previous researchers have emphasized either the intrapsychic or the extrapsychic foundations of identity formation. The present study was designed to examine if interactions between

intrapsychic and extrapsychic functioning are predictive of pure identity statuses. Intrapsychic functioning was dimensionalized to include degree of self-conscious reasoning, and quality of the separation-individuation process of adolescence. Extrapsychic functioning was dimensionalized in terms of family coping, family cohesion, and openness of parent-adolescent communication patterns. Demographic characteristics such as gender and age were also included as predictors of adolescent identity status. The question posed in the present study was whether a combination of both intrapsychic and extrapsychic variables could discriminate between adolescents with different identity statuses?

Method

Subjects

The full sample employed in this study was comprised of 587 students (265 males and 322 females) enrolled in public senior high schools (n=216) or a major Midwestern state university (n=371). Participants ranged in age from 15 to 20. All of the high school students were enrolled in a required social studies course. All of the college students were enrolled in an introductory psychology course. Only single, never-married college students between the ages of 18 and 20 were invited to participate. All of the subjects reported in the analyses below were Caucasian. Minority participants were so infrequent that they were dropped from the full sample.

Since the purpose of the study was to discriminate between

identity statuses, a refined sample was identified from the full sample by selecting only those individuals who exhibited "pure identity statuses" (Adams, Bennion, & Huh, 1987). This procedure, to be described later, resulted in a sample of 178 participants. A comparison of the full and refined samples revealed that the number of subjects in the refined sample was proportionate to the age by gender distribution observed in the full sample.

The refined sample was also similar to the full sample with respect to demographic characteristics. The number of participants reporting intact family structures within the refined and full samples was 73% and 70% respectively. Similarly, 67% of the participants in both samples reported that their mothers were employed outside of the home. Additional socio-economic information was obtained through the use of Duncan's SEI, which exhibited ranges of 13-84 and 11-84 for the refined and full samples respectively. The parental ages of participants was also very similar between the two samples, with parents in the refined sample ($\bar{X}$ mothers age = 39, $\bar{X}$ fathers age = 40) being slightly younger than parents in the full sample ($\bar{X}$ mothers age = 40, $\bar{X}$ fathers age = 42). Finally, 64% of the participants in both samples reported the presence of an older brother or sister in the home. Thus, there did not appear to be any major differences between the refined and full sample on demographic characteristics.

Procedure

Participants were asked to complete a battery of questionnaires in small groups of 30-40 during a free-time period at school. Each session lasted for 1 hour, and a trained leader was present during the session to answer questions. The battery of instruments was designed to facilitate (a) the identification of individuals with pure identity statuses, and (b) the assessment of intrapsychic and extrapsychic characteristics assumed to be predictive of specific identity statuses.

Measures

Extended Objective Measure of Ego Identity Status (EOMEIS; Grotevant & Adams, 1984). Identity status was assessed using the EOMEIS, which yields scores reflecting identity achievement, moratorium, foreclosure, and diffusion. The instrument has been found to possess strong psychometric properties (see Adams, et al., 1987 for an extensive review of current reliability and validity data for the EOMEIS). In the present study, the EOMEIS was found to possess moderate to strong internal consistency for each of the identity statuses (Cronbach's alpha = .76 for achievement; .66 for moratorium; .83 for foreclosure; and .72 for diffusion).

Individuals with a pure identity status were identified using criteria established by Adams et al. (1987). These criteria require that the individual possess a score that is one standard deviation above the mean for one, and only one, identity status. The means and standard deviations for the full sample

were used to identify the refined sample of pure identity achievers, moratoriums, foreclosers, and diffusers. The means and standard deviations generated by the full sample correspond very closely (within one measurement point for each of the identity statuses) to the means and standard deviations reported by Adams et al. (1987).

The cutoffs for identity achievement, moratorium, foreclosure, and diffusion were 72 ($\bar{X}$ = 63.5, SD = 8.4), 63 ($\bar{X}$ = 54.6, SD = 8.3), 54 ($\bar{X}$ = 43.1, SD = 11.0), and 56 ($\bar{X}$ = 46.2, SD = 10.0) respectively. Thus, an individual would have been classified as an identity achiever if their score on the achievement scale of the EOMEIS was greater than 72 and their score on the moratorium, foreclosure, and diffusion scales were less than 63, 54, and 56 respectively. Based on this classification system, 66 subjects were rated as identity achieved, 36 as being in moratorium, 38 as foreclosed, and 38 as diffused.

Additional measures employed in this study were designed to assess the adolescent's perceptions of the quality of intrapsychic and extrapsychic functioning. This battery of measures provided a description of intrapsychic and extrapsychic variables assumed to discriminate between the adolescent's identity status. Adolescent age and gender were also assessed, as these demographic characteristics have been reported to be associated with adolescent identity statuses.

Intrapsychic functioning was dimensionalized as consisting

of non-self-conscious reasoning, and mastery of the separation-individuation process of adolescence. Participants were asked to complete the following measures:

1. Adolescent Social Behavior Scale (ASBS; Lechner & Rosenthal, 1983). The ASBS was designed to assess the extent to which adolescents engaged in non-self-conscious reasoning, which was defined as the adolescent's ability to to deal with situations without being unduly influenced by the presence of others. Previous research has revealed that the more mature identity statuses are characterized by less self-consciousness. The ASBS employs a forced choice format, with higher scores reflecting non-self-conscious reasoning. The ASBS has been found to possess test-retest reliability (r = .86) as well as internal consistency (Cronbach's alpha = .86). The convergent-divergent validity of the ASBS has been established with other measures of adolescent self-consciousness.

2. Separation-Individuation Test of Adolescence (SITA; Levine, Green, & Millon, 1986). The SITA was employed to provide information about the psychological and emotional maturity of the adolescent's interpersonal relationships. Four subscale scores were employed from the SITA, which consists of 67 items answered on a 6-point Likert-type format. The validity of the SITA has been achieved by demonstrating the convergence of each subscale employed in this study with other measures of adolescent personality functioning. In addition, each subscale possesses moderate to strong internal consistency (Cronbach's alpha = .70

for healthy separation, .68 for nurturance seeking, .76 for dependency denial, and .76 for engulfment anxiety). The first two subscales described are associated with healthy separation, while the last two subscales are associated with non-adaptive separation.

The Healthy Separation subscale reflects mature interpersonal relationships based upon a recognition of emotional interdependence rather than dependence or independence. The Nurturance Seeking subscale score reflects the extent to which the individuals relationship with others is characterized by feelings of oneness. Dependency Denial reveals individuals who respond to close interpersonal relationships by defensively denying or rejecting feelings of affection for another. Finally, the Engulfment Anxiety subscale reveals the extent to which individuals are fearful of close relationships because of the perceived loss of independence or selfhood that accompany such relationships.

Extrapsychic functioning was dimensionalized as consisting of adolescent perceptions of family cohesion, family coping skills, and openness of parent-adolescent communication patterns. Participants were asked to complete the following measures:

1. Family Adaptability and Cohesion Scale (FACES III; Olson, Portner, & Lavee, 1985). The FACES was used to assess adolescent perceptions of emotional cohesion among family members. The FACES employs a 5-point Likert-type format, with high scores reflecting greater family cohesion. For the purpose of this

study, only the cohesion subscale will be employed. The FACES has been found to possess strong test-retest reliability (.83 for the cohesion subscale) and internal consistency (Cronbach's alpha = .89). The FACES also possesses clinical validity.

2. Family Coping Scale (FCOPES; McCubbin, Larsen, & Olson, 1987). FCOPES was used to assess adolescent perceptions of the effectiveness of family problem-solving in difficult situations. The FCOPES employs a 5-point Likert-type format, with high scores reflecting greater family coping skills. FCOPES has been found to possess strong psychometric properties, including test-retest reliability (.81) and internal consistency (Cronbach's alpha = .85). This measure also possesses construct validity.

3. Parent-Adolescent Communication Scale (PAC; Barnes & Olson, 1982). The PAC was used to assess adolescent perceptions of the openness of communication with parents. The PAC employs a 5-point Likert-type format, with high scores reflecting greater openness in patterns of parent-adolescent communication. The PAC has been found to yield consistent results over time (test-retest reliability = .78), and demonstrates internal consistency (Cronbach's alpha = .91). This collective battery of measures allowed for an assessment of dimensions of intrapsychic and extrapsychic functioning that may discriminate between the different adolescent identity statuses.

Results

A stepwise discriminant analysis was employed to identify which combination of the 10 variables reflecting individual

developmental characteristics and perceptions of family functioning maximized differences between identity achievers, moratoriums, foreclosers, and diffusers. Due to the fact that there were significant differences in the number of subjects within each of the identity statuses, the a priori probabilities of group membership were adjusted by the actual group sizes (Dillon & Goldstein, 1984). Based upon an F-to-enter criterion of 1.50, nine variables remained in the discriminant equation. Adolescent gender did not meet the statistical criteria for remaining in the analyses and was dropped. Table 1 provides a summary of univariate F statistics of the nine retained variables for each of the identity statuses.

Insert Table 1 about here.

The results of these analyses indicate that both intrapsychic and extrapsychic functioning are related to the adolescent's identity status. A more precise description of the relationship between each of the identity statuses and perceptions of functioning was obtained by performing a Scheffe's test. The results of this post-hoc test, along with the means and standard deviations of each of the nine variables are also presented in Table 1. In general, these measures appeared to distinguish most effectively between adolescents who were identity achieved from those who were diffused.

However, the univariate analysis of this data does not

reveal whether a combination of intrapsychic and extrapsychic variables discriminates between adolescents with different identity statuses. The multivariate analysis of this data yielded two significant discriminant functions, Wilk's Lambda = .51, Chi-Square (39, N = 178) = 111.18, $p<.0001$; Wilk's Lambda = .74, Chi-Square (24, N = 178) = 47.65, $p<.01$. The standardized discriminant function coefficients for each variable on each of the discriminant functions are presented in Table 2. Univariate F tests of group centroids yielded significant differences for all comparisons ($p<.05$), and are presented in Table 3. This pattern of results revealed that the discriminant analysis significantly separated individual's having different identity statuses on the basis of adolescent self-reports of intrapsychic and extrapsychic functioning.

Insert Table 2 about here.

Insert Table 3 about here.

Function 1 reflects adaptive dimensions of intrapsychic and extrapsychic functioning. Function 1 was comprised of the adolescent's perception that the family was capable of coping with change and that parents were open to meaningful communication. In addition, Function 1 was characterized by individuals who engaged in non-self-conscious reasoning, and who

did not deny dependency needs or experience engulfment anxiety.

Function 2 was characterized by older adolescents, and those who had achieved healthy separation from the family of origin. These adolescents recognized the adaptive value of establishing a sense of interdependence in close interpersonal relationships with others. In addition, Function 2 appeared to be inversely related to emotional cohesion within the family and nurturance seeking. Thus, the two significant discriminant functions appeared to capture similar dimensions of intrapsychic and extrapsychic functioning that discriminate between the identity statuses. As the adolescent begins to establish individuated relationships with others, there appears to be less reliance on the family for nurturance and feelings of emotional cohesion.

Thus far the results have revealed that nine of the eleven original variables provide the foundation for two discriminant functions which are capable of generating significant spatial distances between the group centroids of each of the identity statuses (see Table 3). How well is adolescent identity status predicted by the discriminant functions? Table 4 reveals the classification results for each of the identity statuses based on the variables retained in the stepwise discriminant analysis. Although the overall rate of correct identity status classification was moderate (65%), the classification of identity achieved adolescents was very strong (86%). The correct classification of adolescents who were in moratorium, foreclosed, or identity diffused was problematic.

Insert Table 4 about here.

Discussion

In general, the results of the stepwise discriminant analysis indicated that adolescent self-reports of both intrapsychic and extrapsychic functioning discriminated between the identity statuses. Dimensions of extrapsychic functioning found to discriminate between identity statuses consisted of family coping skills, family cohesion, and openness of parent-adolescent communication patterns. Adolescents who were identity achieved or foreclosed perceived their families as possessing greater coping skills, greater emotional cohesion, and more open patterns of communication than did adolescents who were diffused or in moratorium. After discussing the relationship of extrapsychic functioning to the identity statuses, this apparent contradiction between the family climate of identity achieved and foreclosed adolescents will be explored.

The findings for identity achieved adolescents essentially replicate those reported by Adams (1985; Adams & Jones, 1983; Campbell, et al., 1984) in that the greatest amount of identity exploration and/or commitment is found in families that are characterized by openness and emotional connectedness. This pattern of findings for identity achieved adolescents is also theoretically consistent with the writings of Grotevant and Cooper (1985, 1986; Grotevant, 1983), which contend that

adolescent identity development is facilitated by families that provide an emotional base from which adolescents can more freely explore life options and alternatives. In the present study identity achieved adolescents perceived such a relationship and, to a lesser extent, so did adolescents in moratorium.

The diffused adolescent perceived the extrapsychic environment provided by the family as possessing the least effective coping skills, least emotional cohesion, and least openness in patterns of parent-adolescent communication. The role confusion experienced by the identity diffused adolescent appears to be reflected by a lack of organization and openness in the social contexts in which their development is embedded.

That achieved and foreclosed adolescents report similar patterns of family functioning appears to be a problematic finding. How can family contexts that are reported as being equally adaptive, cohesive, and open result in two qualitatively different identity statuses? The answer to this dilemma can be achieved through an examination of the interactive relationship between intrapsychic and extrapsychic functioning.

Identity foreclosed adolescents also reported a strong emotional foundation within the family, which may explain why these adolescents might uncritically incorporate family chosen options and life alternatives. However, the data presented in Table 1 indicate that the quality of adolescent separation-individuation, in addition to the emotional quality of the family context, distinguishes between identity achieved and foreclosed

adolescents. Specifically, foreclosed adolescents exhibit significantly lower levels of healthy separation, and higher levels of dependency denial than do identity achieved adolescents. Thus, the affective quality of family relationships reported in families with identity foreclosed adolescents may reflect overenmeshment rather than adaptive levels of emotional cohesion.

Thus, while emotional connectedness appeared to be important for an understanding of identity development during adolescence, the findings of the present study indicated that perceptions of intrapsychic functioning must also be considered in relation to the process of identity formation. Perceptions of intrapsychic functioning found to discriminate between identity statuses consisted of non-self-conscious reasoning and the extent to which the adolescent had successfully individuated from the family of origin. These findings are also entirely consistent with the theoretical model developed by Grotevant and Cooper, in which the open expression of self-assertions and feelings of separateness are thought to facilitate the process of individuation.

These findings conform to the work of other researchers (ex. Marcia, 1967, 1976; Read, et al., 1984; Slugoski, et al., 1984), in that the identity statuses involving exploration were associated with greater self-differentiation or individuation. For example, identity achieved adolescents were significantly less likely to deny the need for close interpersonal relationships than were adolescents in all of the other statuses.

Identity achieved adolescents also exhibited the greatest levels of healthy separation-individuation. These findings expand upon the work reported by Orlofsky, et al. (1973), which revealed that identity achieved adolescents possessed the greatest capacity for developing and maintaining close interpersonal relationships. Foreclosed adolescents perceived themselves as seeking more nurturance from interpersonal relationships than did other adolescents, and identity diffused adolescents reported greater engulfment anxiety than did achieved adolescents. Thus, the extent to which adolescents perceived themselves as having successfully individuated from the family of origin was associated with their identity status.

The present findings on perceptions of intrapsychic functioning also revealed that identity achieved adolescents and those in moratorium were least self-conscious in their reasoning. This finding is consistent with research demonstrating that the more mature identity statuses are characterized by less self-consciousness (Adams, et al., 1987). Identity achieved adolescents, and those in moratorium possess an ability to to deal with situations without being unduly influenced by the presence of others. This finding is consistent with Toder and Marcia's (1973) finding that identity diffused subjects display greater conformity in social situations than do other adolescents.

In general, the findings of the present study corroborates those of previous research despite using different strategies for

assessing identity status, different measures to assess adolescent perceptions of intrapsychic and extrapsychic functioning, and different samples. Given these differences, the robustness of these findings suggests that the study of intrapsychic and extrapsychic influences on identity development is a useful strategy for acquiring information about adolescent psychosocial development. The results of the present study along with those reported by Campbell et al. (1984) provides empirical support for the notion that perceptions of individuality and emotional connectedness in the family context influence adolescent identity development. Thus, the Grotevant and Cooper model of adolescent psychosocial development appears to be a powerful tool for integrating findings from diverse studies on adolescent identity development and merits further application.

As a final note, the problem of "pure identity statuses" needs to be addressed. In general, classification errors for the identity moratorium, foreclosure, and diffusion statuses were due to the misclassification of these statuses as identity achievement. The reasons for this inability to accurately classify the moratorium, foreclosure, and diffusion statuses are best reflected by the results of Scheffe's test that are presented in Table 1. For example, perceptions of family coping appears to discriminate between adolescents who are identity achieved and those who are diffused and in moratorium, but not between those adolescents who are identity achieved and foreclosed. This same pattern of findings holds true for

perceptions of family cohesion and openness of parent-adolescent relationships as well. Adolescent perceptions of intrapsychic functioning appears to discriminate between identity achieved adolescents and those who are foreclosed and diffused, but not as effectively between identity achieved adolescents and those in moratorium.

The inability to accurately classify adolescents from all identity statuses may stem from several problems. First, the dimensionalization of intrapsychic and extrapsychic functioning may have been inadequate. There may be other dimensions of family functioning (ex. behavioral control) that do permit a more accurate classification but which were not assessed in the present study. Second, Waterman (1985) and Archer (1985) have addressed the issue of conceptualizing the identity formation process as discrete identity statuses. The problem with such a conceptualization is that the achievement of a sense of identity may be content or domain specific. Thus, an adolescent may have explored and committed to sex-roles but not political ideology. This variability by domain makes discrimination more problematic. Future research is needed to address these methodological and conceptual issues.

Several limitations inherent in this study also need to be addressed. First, the use of subjects possessing a "pure identity status" undoubtedly results in a highly biased sample which does not permit widespread generalization of the results. At the same time, the present results may provide a clearer

picture of how the interaction of intrapsychic and extrapsychic functioning influences identity development. Second, by examining the interaction between dimensions of intrapsychic and extrapsychic functioning the relative contribution of each has not been described. There may be some merit in determining whether intrapsychic or extrapsychic has the greater impact on identity status, especially if the model incorporates age or gender. However, such an approach also runs the type of risk that has been encountered in trying to specify how much of intelligence is nature or nurture. Finally, valuable relationships may be identified and described by investigating identity status scores as continuous rather than discreet variables.

In summary, the results of the present study reveal that interactions between intrapsychic and extrapsychic functioning are associated with different identity statuses. The more mature identity statuses are characterized by greater levels of healthy separation-individuation as well as adaptive, cohesive, and open patterns of family functioning. The less mature identity statuses are characterized by a denial of the importance of interpersonal relationships as well as anxiety about the self's being overwhelmed in a close relationship. However, the affective quality of the family context differs between identity foreclosed and diffused adolescents. While the identity foreclosed adolescent inhabits an overenmeshed family context, the diffused adolescent perceives a disengaged family climate.

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Table 1

Means, Standard Deviations (in parens), and Results of Scheffe's Test for the Variables Retained by the Discriminant Analysis for Each Identity Status.

		Identity Statuses			
Variables	F	Achieved	Moratorium	Foreclosed	Diffused
Family Coping	6.02 p<.001	100.86 (15.89) a	92.94 (14.29)	97.50 (13.63)	88.50 (15.39) a
Family Cohesion	5.22 p<.01	36.23 (9.50) a	32.51 (8.52)	36.33 (5.73)	30.29 (8.52) a
Openness of Parent-Adolescent Communication	7.58 p<.0001	74.00 (15.37) a	66.65 (17.31)	72.11 (14.77) b	59.42 (15.85) a b
Healthy Separation	11.29 p<.0001	48.01 (5.17) a b	45.28 (5.69) c	42.00 (5.82) a c	43.08 (5.91) b
Nurturance Seeking	6.11 p<.001	21.97 (3.55)	20.17 (2.55) a	23.39 (3.57) ab	20.50 (4.54) b
Dependency Denial	7.44 p<.0001	23.15 (5.68) a b	26.08 (6.51)	27.33 (6.13) b	28.97 (7.74) a
Engulfment Anxiety	4.84 p<.01	20.66 (5.90) a	22.80 (5.67)	21.88 (4.71)	25.05 (6.35) a

Table 1 continued.

Variables	F	Identity Statuses			
		Achieved	Moratorium	Foreclosed	Diffused
Age	5.19 p<.01	18.31 (1.40) a	17.46 (1.59)	17.55 (1.61)	17.15 (1.71) a
Non-Self-Conscious Reasoning	3.58 p<.05	13.66 (5.39) a	12.71 (11.11)	10.20 (4.37)	9.81 (5.04) a

Note. Significance values for the F-ratios are based on 3 and 170 degrees of freedom.

Means with the same letter beneath them are significantly different from one another at the p<.05 level.

Table 2

Standardized Discriminant Function Coefficients for the Variables Selected in the Discriminant Analysis Following Varimax Rotation.

Variables	Discriminant Function 1	Discriminant Function 2
Family Coping	.35	.14
Family Cohesion	.06	-.57
Openness of Parent-Adolescent Communication	.36	-.02
Healthy Separation	.01	.59
Nurturance Seeking	.14	-.64
Dependency Denial	-.48	.01
Engulfment Anxiety	-.46	.10
Age	.14	.32
Non-Self-Consciousness	.28	.12

Table 3

F Statistics and Significance (in parens) for Mahalanobis Distances Between Identity Status Centroids.

	Identity Status			
	Achieved	Moratorium	Foreclosed	Diffused
Achieved	-----			
Moratorium	2.93 (.01)	-----		
Foreclosed	4.78 (.0001)	3.67 (.001)	-----	
Diffused	6.33 (.0001)	2.37 (.01)	3.24 (.01)	-----

Note. Significance levels of the F Statistic are based on 8 and 163 degrees of freedom.

Table 4

Classification Results Based on the Variables Selected in the Discriminant Analysis.

Classified From		Classified To: Achieved	Moratorium	Foreclosed	Diffused
Achieved	(n=66)	57	2	4	3
		86%	3%	6%	5%
Moratorium	(n=36)	11	15	5	5
		30%	42%	14%	14%
Foreclosed	(n=38)	13	1	20	4
		34%	3%	53%	10%
Diffused	(n=38)	7	6	1	24
		18%	16%	3%	63%